85357

S/120/60/000/005/030/051
E032/E314

21.5200

AUTHORS: Veksler, A.S., Lyubimov, A.L., Zorin, I.A., Stebinskiy, V.S. and Stoychev, L.T.

TITLE: A Cherenkov Counter Using Total Internal Reflection

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 5, pp. 119 - 121

TEXT: The counter is shown schematically in Fig. 1. The Cherenkov radiation produced by a charged particle passing through the radiator strikes the front and at various angles, depending on the velocity of the particle. For particles with a velocity $\beta_0 = (n_1^2 - n_2^2)^{-1/2}$ the angle of incidence is equal to the angle of total internal reflection. The Cherenkov radiation due to particles with velocities greater than $\beta_0$ experiences total internal reflection and is absorbed by the rear wall of the container which is covered by black velvet. In the case of particles having a velocity smaller than $\beta_0$, the radiation leaves the radiator and strikes two photomultipliers placed below the particle beam.

Card 1/3

Each photomultiplier has a separate output and a special mirror is used to improve the light collection. The characteristics of the counter were investigated in the $\pi^-$ beam of the synchrocyclotron of the Laboratoriya yadernykh problem OIYaI (Laboratory for Nuclear Problems of the Joint Institute for Nuclear Studies). In the case of 2.8 GeV/c $\pi^-$ mesons the efficiency of the counter was found to be between 0.01 and 0.03, depending on the type of photomultiplier employed. A similar device has been described by Agnew et al in Ref. 2. However, the efficiency in the latter work was 0.1. Acknowledgments are expressed to V.I. Veksler for valuable advice. There are 2 figures and 5 references: 1 Soviet and 3 English.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Studies)

SUBMITTED: September 2, 1959

Card 2/3

VOVENKO, A.S.; LYUBIMOV, A.L.; SAVIN, I.A.; STAVINSKIY, V.S; STOYCHEV, T.T.

Cherenkov counter utilizing total internal reflection. Prib.i tekh. eksp. no.5:119-121 S-O '60. (MIRA 13:11)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Cherenkov radiation) (Nuclear counters)

L 4407-66 EWT(d)/EWP(1)/EWP(m)/EWP(w)/EWP(v)/T-2/EWP(k)/EWA(c)/EWT(m) WW/WH

ACC NR: AP5026557 UR/0286/65/000/019/0113/0113
621.43.06:621.45-225.3

INVENTOR: Stoychev, V. V.

ORG: none

TITLE: Variable turbojet-engine nozzle with a noise suppressor. Class 46, No. 175353

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 113

TOPIC TAGS: turbojet engine, exhaust nozzle, nozzle design, nozzle area

ABSTRACT: A variable turbojet-engine nozzle, having a noise suppressor, pipes through which the air ejected by the gas flow moves, and swing flaps controlled by actuating cylinders with rods, is introduced. With a view to expanding the range of variation in the nozzle exit area and increasing the degree of noise suppression by mixing the gas with the additionally ejected air between the flaps, the latter are made in the form of specially shaped lobes girdled by a ring connected to the rods by hinges. A variation of the nozzle is distinguished by the presence of grooves in the nozzle casing on both sides of each lobe to assure their sealing. A second variation is distinguished by the fact that the lobes are joined by grooves made on one side of each lobe. [11]

SUB CODE: PR,AC/ SUBM DATE: 01Jun62/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4125

Card 1/1

44871
S/081/62/000/024/069/073
B166/B186

AUTHORS: Gutsov, St., Stoycheva, V.

TITLE: Production and properties of glass from syenite in the system $SiO_2$ - $Al_2O_3$ - CaO - MgO - $K_2O$

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 584-585, abstract 24K342 (Godishnik Khim.-tekhnol. in-t, v. 7, nos.1-2, 1960 (1961), 119 - 136 [Bulg.; summaries in Russ. and Ger.])

TEXT: Glass was synthesized on the basis of potassium-alkali Svidnya syenite from the Svogen region corresponding in composition to a ternary diagram consisting of leucite, diopside and quartz, this composition coinciding with the content of iron-free syenite ($SiO_2$ - $Al_2O_3$ - CaO - MgO - $K_2O$). Three groups of glasses were synthesized: A, B and C. A Cn series was synthesized from the latter by substitution. Because of their high viscosity no practical application was found for glasses of group A. The glasses of group C are recommended for the production of architectural and building glass, gauge glass, glass wool and glass insulators not requiring

Card 1/2

Production and properties ... S/081/62/000/024/069/075
B166/B186

complete decolorization. Packaging and bottle articles can be produced from group Cn glasses. [Abstracter's note: Complete translation.]

X

Card 2/2

ACC NR: AT6036571 SOURCE CODE: UR/0000/66/000/000/0183/0184

20

AUTHOR: Ioffe, L. A.; Stoyda, Yu. M.; Vasil'yeva, T. P.

ORG: none

TITLE: Dynamics of the functional state of the circulatory apparatus in athletes under conditions of limited motor activity [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materiily konferentsii, Moscow, 1966, 183-184

TOPIC TAGS: hypodynamia, cardiovascular system, nervous system, human physiology, space physiology

ABSTRACT: Prevention of the adverse effects of limited motor activity on the activity of the cardiovascular system is one of the most important problems of space physiology. Studies of hypokinesia of various durations have shown that exposure to this factor causes deterioration in the quality of circulatory apparatus regulation, this deterioration manifesting itself in autonomic nervous system shifts, decreased orthostatic tolerance, changes in capillary resistance, and so forth (A. L. Myasnikov et al., Yu. V. Vanyushina, Dietlein, Lamb et al., and others).

At the same time it has been shown that special physical exercises

Card 1/4

L 10952-67

ACC NR: AT6036571

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have a positive effect on the [illegible] metabolism functions (Lamb et al., Sjostrand). It is well known that systematic training improves the quality of circulatory apparatus regulation. The quality of cardiac activity in athletes in a state of rest is modulated by powerful cholinergic effects which are most pronounced in the case of endurance training.

These considerations determined the goal of the present investigation, which studied the effect of 10 days of strict bed-rest on the electrical activity of the heart and on indices of cardiodynamics and arterial pressure in highly-qualified weight-lifters and long distance runners. The dynamics of these indices were studied during maximal strain (treadmill speed and endurance runs) and passive orthostatic tests daily for 3 days before and after hypokinesia. The functional state of the circulatory apparatus in the athletes under study indicated a high state of training. At the same time, differences were noted between the weight-lifters and light athletes (slower heart rhythm in runners at rest, persistence of respiratory arrhythmia in orthostasis, the appearance of electrical alternation during strain, the character of changes in atrial ventricular conductivity during muscular effort and orthostatic tests and so forth); these differences were due to the more pronounced effects of the vagus nerve in the runners.

Card 2/4

AC NR: AT6034471

Exposure to hypokinesia resulted in near equalization of the differences in the above-mentioned cardiac activity indices. During hypokinesia, the runners showed more pronounced shifts than under initial conditions. Changes in cardiac rhythm, electrical activity of the heart, and the phase structure of the left ventricular systole (both at rest and during exertion) indicated impairment of the quality of cardiac activity regulation and a decrease in the contractility of the myocardium. V. Ye. Vasil'yeva noted a decrease in the rate of propagation of pulse waves along muscular-type vessels in these same subjects. It should be noted that orthostatic tolerance was greater in the weight-lifters than in the runners.

A notable increase occurred in the amplitude of the $Tv_{1-2}$ waves, apparently due to the elimination of the hydrostatic factor, temporary increase in venous return (Sjostrand), and pooling of blood in the respiratory loop (V. V. Parin). This suggests that the increased $Tv_{1-2}$ is related to intensified functional activity of the right heart.

Normalization of indices of the functional state of the circulatory apparatus was complete by the 2nd to 3rd day after the end of hypokinesia. Athletic training gives advance assurance that changes in cardiac activity regulation will have a more favorable character than in untrained persons. At the same time these changes do not depend on the degree of vagotonia

Card 3/4

L 10[illegible]-67

ACC NR: AT6036571

(since in runners, the [illegible] in the weight-lifters). (W.A. No. 32; ATD Report 66-[illegible])

SUB CODE: 06 / SUBM DATE: [illegible]

Card 4/4

ANZHELESKU, Ye. [Angelescu, E.]; SIMIONESKU, N. [Simionescu, N.]; DAMIAN, A.; OPRAN, G.; STOYENESKU, D. [Stoenescu, D.]; OPROYU, A. [Oproiu, A.] (Rumyniya)

Surgical treatment of malignant tumors of the thyroid gland with metastases into the cervical lymph nodes. Probl.endok.i gorm. no.4:83-90 '62. (MIRA 15:11)

(THYROID GLAND—CANCER) (LYMPHATICS—CANCER)

MILCU, S.A. [Milcu,S.A.]; ANDZHELESKU, Ye. [Angelescu, E]; DAMIAN, A. [DAMIAN, A.]; STOYENESKU,D. [Stoerescu, D.]; OPRAN, Kh.[Opran,H.] OPROIU, A. [Oproiu,A.]; IORGULESKU, G. [Iorgulescu, G].

Virilizing malignant tumor of the adrenal gland. Ia Probl.endok. i gorm 8 no.2:97-103 Mr-Ap'62. (MIRA 16:7)
(ADRENAL GLAND--CANCER) (VIRILISM)

KARLOV, V.L.; [illegible], A.[illegible]; [illegible]SHOV, M.Ye.; [illegible]ZLOV, V.Ye.; LISOV, G.N.; [illegible]YENKO, [illegible]; [illegible]VITSKIY, D.M.; VAYNSHTEYN, B.I.; SYRKUS, N.P.

Large-scale radiation-chemistry plant with irradiator made from spent nuclear fuels. Atom. energ. 15 no.4:302-308 O '63. (MIRA 16:12)

STOYEV, Georgi Iliyev; AKSENOV, P.P., red.; LEBEDEVA, I.D., red. izd-va; LOBANKOVA. R.Ye., tekhn. red.

[Determining the maximum output of lumber] Opredelenie maksimal'nogo vykhoda pilomaterialov. Moskva, Goslesbumizdat, 1961. 62 p. (MIRA 14:12)

(Sawmills)

STOYEV, I.S.

STOYEV, I.S., nachal'nik; TOKAREV, V.S., nachal'nik.

Eighty six and one tenth meter of shaft sinking per month. Mekh.trud.rab. 7 no.8:17-23 Ag '53. (MLRA 6:8)

1. Prokhodkashakhty "Vetka-Glubokaya" (for Stoyev). 2. Pervoye prokhodcheskoye stroitel'noye upravleniye trosta Stalinshakhtoprokhodka.
(Shaft sinking)

USSR/Mining STOYEV, I. S.

Card 1/1

Authors : Stoyev, I. S , Mining Engineer

Title : Sinking of cage shaft at an average rate of 60 m per month

Periodical : Mekh. Trud. Rab., 2, 19 - 23, March 1954

Abstract : Report describes the work conducted by one of the coal mines in the Don basin (Ignatyevskaya) connected with the sinking of a cage shaft (outer diameter 7.5 m; inner diameter 6.5 m) into a depth of 235 m. The work was completed within 3.5 months which gives it an average of over 60 m per month. The organizational project of the shaft sinking work was developed by the (VNIIOMSh) All Union Research Institute for Organization and Mechanization of Mine Construction. Tables showing the work organization are given.

Institution : ....

Submitted : ....

STOYEV, I.S.

Completing 140.1 m of large diameter shaft in a month. Mekh. trud.rab. 8 no.7:24-27 O-N '54. (MLRA 8:1)

1. Glavnyy inzhener 1-go prokhodcheskogo upravleniya tresta Stalinshakhtoprokhodka.
(Shaft sinking)

STOYEV, I S

STOYEV, I.S.

202.1 linear meters of vertical shaft per month. Ugol' 30 no.6:31-37 Je '55. (MIRA 8:8)

1. Glavnyy inzhener 1-go prokhodcheskogo upravleniya tresta Stalinshakhtoprokhodka.
(Shaft sinking)

STOYEV, I.S., gornyy inzhener

Efficient technology in mining and timbering of interconnecting loading areas, charging arrangement rooms and other working areas directly connected with shafts. Ugol' 30 no.8:28-34 Ag'55. (MLRA 8:10)

(Shaft sinking) (Mine timbering)

STOYEV, I., laureat Leninskoy premii.

New developments in shaft sinking at Voroshilovgrad mines. Mast. ugl. 6 no.10:7-8 O '57. (MIRA 10:12)

1. Glavnyy inzhener tresta Voroshilovgradshakhtoprokhodka.
(Donets Basin--Shaft sinking)

STOYEV, I.S., inzh., laureat Leninskoy premii

Increase the final average speed of vertical mine shaft sinking. Shakht.stroi. no.6:3-5 Je '63. (MIRA 12:9)

1. Glavnyy inzhener trosta Luganskshakhtoprokhodka.
(Shaft sinking)

[illegible], I. S. [illegible] -- "[illegible] of [illegible] flow plats ~~diagrams~~ of surface ~~mining~~ [illegible] [illegible], [illegible] selection of the most efficient size ~~[illegible]~~ for ordinary ~~[illegible]~~ [illegible] [illegible] [illegible]." Khar'kov, 195[illegible] ([illegible] Higher and Secondary [illegible] [illegible] [illegible] [illegible] Khar'kov Mining Inst. [illegible], 1-4, 195[illegible]

STOYEV, I.S., inzh.

Shaft deepening in reconstructing the "Gorskaia" mine No.1/2. Shakht. stroi. 4 no. 5:22-25 My '60. (MIRA 14:4)

1. Trest Luganskshakhtoprokhodka.
(Lugansk Province--Shaft sinking)

OREKOV, A.G.; GUBANOV, M.S.; STOYEV, I.S.; KORNIYEVSKIY, D.N.

Valuable monograph on boring and blasting operations (Boring and blasting operations in mining" by E.O. Mindelli. Reviewed by A.G. Orekov and others). Ugol' Ukr. 4 no. 11:42 N '60. (MIRA 13:12)

1. Nachal'nik kombinata Luganskshakhtostroy (for Orekov). 2. Ispolnyayushchiy obyazannosti nachal'nika kombinata Donbassantratsit (for Gubanov). 3. Glavnyy inzhener tresta Luganskshakhtoprokhodka (for Stoyev). 4. Zamestitel' nachal'nika kombinata Donbassantratsitshakhtostroy (for Korniyevskiy).
(Mining engineering)
(Mindelli, E.O.)

STOYEV, I.S., gornyy inzh.

Lining of vertical shafts. Ugol' Ukr. 5 no.2:27-30 F '61. (MIRA 14:3)

(Shaft sinking) (Mine timbering)

STOYEV, I.S.

Increasing the average rate of construction of vertical shafts in the mines. Ugol' Ukr. 5 no.7:11-12 Jl '61. (MIRA 15:1)

1. Glavnyy inzh. tresta Luganskshakhtoporkhodka.
(Donets Basin--Shaft sinking)

[illegible]

[illegible] the [illegible] of [illegible] during their mining. (MGRA 19:7) [illegible]

[illegible] may be [illegible] material by institut organizatsii [illegible] organizatsii [illegible] tva [illegible] [illegible].

STOYEV, K. D.

see STOEV, K. D. Bulgaria

SLUYEV, St.

Bulgaria

No degree listed

No affiliation listed

Sofia, Farmatsiya, No 5, Sept-Oct 196 , pp 10-12.

"The Question of Material Responsibility in Pharmaceutical Establishments"

STOJEV, St. [Stoyev, St.]; STEPANOV, Cv. [Stepanov, Tsv.]

Photoluminescent method for determining the distribution of flotation reagents on the surface of coal particles. Paliva 45 no.2:38-41 F '65.

1. Chair of Dressing of the Faculty of Geology, Sofia.

[illegible]

[illegible]

[illegible]

ROMENSKIY, N.V.; KALYUZHNAYA, A.M.; BAREN, O.O.; ATANAS, L.O.; STOYEVA, O.Z.

Bread baking properties of prospective varieties of wheat. Izv.vys.uchebn.zav.; pishch.tekh. no.6:3-4 '59. (MIRA 13:5)

1. Odesskiy tekhnologicheskiy institut imeni I.V.Stalina. Kafedra biokhimii zerna i zernovedeniya.
(Wheat--Varieties)

ROMENSKIY, N.V.; TORZHINSKAYA, L.R.; STOYKVA, O.Z.; MANERAKI, V.V.

Biochemical and baking characteristics of the Michurinka, a hard winter wheat. Izv.vys.ucheb.zav.;pishch.tekh.no.5:8-11 '60. (MIRA 13:12)

1. Odesskiy tekhnologicheskiy institut imeni I.V.Stalina. Kafedra biokhimii zerna i zernovedeniya.
(Wheat)

[illegible], A.; [illegible], [illegible]; [illegible], E.; [illegible], M. [Botirescu, M.]

Investigation of short-latency responses evoked by acoustic stimuli from anesthetic or visual zone of unanesthetized cats. Fiziol. zhur. 49 no.12:1391-1399 D '63. (MIRA 17:12)

1. Institut nevrologii im. I.P. Pavlova Akademii Rumynskoy Narodnoy Respubliki, Bukharest.

VOYKULESKU, V. [Voiculescu, V.]; BROSHTYANU, R. [Brostianu, R.]; VOYNESKU, I. [Voynescu, I.]; STOYKA, I.

Electrical activity of the cortical and subcortical formations following ligature of the carotid arteries in cats. Nauch. trudy Inst. nevr. AMN SSSR no.1:263-270 '60. (MIRA 15:7)

1. Institut nevrologii imeni Pavlova Akademii Rumynskoy Narodnoy Respubliki, Bukharest.

(CEREBRAL CORTEX) (CAROTID ARTERY--LIGATURE)
(ELECTROENCEPHALOGRAPHY)

BRAYNES, A., akad.; KRIGEL', Ye.; STOYKA, I.

[Epilepsy in children] Detskaia epilepsiia. Bucharest, Izd-vo Akad. Rumynskoi Narodnoi Respubliki, 1963. 269 p. (MIRA 16:12)

(EPILEPSY) (CHILDREN--DISEASES)

IL'IN, S., zhurnalist; BUSAKOVA, V., zhurnalist; BRODOVSKIY, B., zhurnalist; SVIRIN, I., zhurnalist; KISHCHIK, P., zhurnalist; STOYKEVICH, M., zhurnalist; PAREMSKIY, V., zhurnalist; L'VOV, B., zhurnalist; LYUBASHCHENKO, I., zhurnalist; VYSOTSKIY, Ye., zhurnalist; KHVOSTOVA, D.M., red.; SHADRINA, N.D., tekhn.red.

[Innovators in the seven-year plan; people with work achievements] Zachinatali novogo v semiletke; liudi trudovogo podviga. Moskva, Izd-vo VTeSPS Profizdat. No.7. 1961. 66 p. (MIRA 15:2)

(Building--Technological innovations)

STOYKO, I.; TABARANU, F., agronom

Technological chart for sugar beet growing. Tekh. v sel'khoz. 20 no.6:11-15 Je '60. (MIRA 13:10)

1. Predsedatel' kolkhoza imeni XXI s"yezda Kommunisticheskoy partii Sovetskogo Soyuza, Bel'tskogo rayona, Moldavskoy SSR (for Stoyko).
2. Kolkhoz imeni XXI s"yezda Kommunisticheskoy partii Sovetskogo Soyuza, Bel'tskogo rayona, Moldavskoy SSR (for Tabaranu).
(Sugar beets)

PAKHOMOV, N.M.; STOYKO, I.V.

Introduction of an enlarged borehole pattern at the open-cut mine of the Rozdol Sulfur Combine. Khim.prom. no.10:773-776 O '62. (MIRA 15:12)
(Rozdol—Sulfur mines and mining)

TURUTA, U.N., kand. tekhn. nauk; KARPUKHIN, V.A.; GALIMULLIN, A.T., kand. tekhn. nauk; KRAVETS, V.G.; KHIKHLUSHKO, B.P., STOYKO, I.V.

Investigating ore breaking with inclined borehole charges at the strip mine of the Pozdol chemical combine. Met. i gornorud. prom. no.3:56-57 My-Je '64. (MIRA 17:10)

[illegible]YKO, N.

Time signals Astron.tsir. no.178:25-26 Ma '57. (MIRA 10:9)
(Time signals)

STOYKO, N.

Sofiia Mikhailovna Varzar (1878-1957); obituary. Astron.tsir. no. 186:25-26 N '57. (MIRA 11:4)

1. Nachal'nik Mezhdunarodnogo byuro vremeni.
(Varzar, Sofiia Mikhailovna, 1878-1957)

STOYKO, N.

Time signals. Astron. tsir. no.189:28 F '58. (MIRA 11:8)

1.Zaveduyushchiy sluzhbami Mezhdunarodnogo Byuro Vremeni.
(Time signals)

STOYKO, N.

Time signals. Astron. tsir. no.191:29 My '58. (MIRA 11:9)

1. Nachal'nik Mezhdunarodnogo byuro vremeni.
(Time signals)

STOYKO, N.

Time signals. Astron. tsir. no.194:29 Ag '58. (MIRA 12:12)

1. Nachal'nik Mezhdunarodnogo Byuro vremeni.
(Time signals)

STOYKO, N.

Time signals. Astron. tsir. no.196:19 O '58. (MIRA 12:12)

1.Zaveduyushchiy sluzhbami Mezhdunarodnogo byuro vremeni.
(Time signals)

STOYKO, N.M.

Time signals. Astron. tsir. no.199:31-32 Ja '59. (MIRA 13:2)

1.Zaveduyushchiy Mezhdunarodnym Byuro Vremeni.
(Time signals)

STOYKO, N.

Time signals. Astron.tsir. no.200:29 Mr '59. (MIRA 13:2)

1. Zaveduyushchiy slushbami Meshdunarodnogo byuro vremeni.
(Time signals)

STOYKO, N.M.

Time signals. Astron.tsir. no.209:42 Mr '60. (MIRA 13:9)

1. Zaveduyushchiy Mezhdunarodnym byuro vremeni.
(Time signals)

STOYKO, N.M.

Ephemeris time and constant frequency for the transmission of time signals. Astron.tsir. no.218:27 F '61. (MIRA 14:7)

1. Mezhdunarodnoye byuro vremeni.
(Time signals)

BULGARIA

KOYCHEVA, V., STOYANOVA, N., Scientific Research Institute of Labor Protection and Occupational Diseases (Director, Prof. M. Lukanov)

"Changes Under the Influence of Various Stress Factors in the Oxidase Activity Due to Ceruloplasmin"

Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 5, No 1, 1966, pp 26-32

Abstract: The content of ceruloplasmin in the blood serum of rats was determined colorimetrically according to H. A. Ravin and by electrophoretic and immunophoretic methods after the rats had been subjected to stress by forcing them to swim until exhaustion in water at a temperature of 32, 18, or 42°. The average length of time during which the rats swam at the three temperatures was 353 min 6 sec, 14 min 7 sec, and 74 min, respectively. An unspecific increase in the ceruloplasmin

1/2

75-6-20/23

AUTHOR: Yankov, Stoyko Petrov, Bulgaria.

TITLE: Qualitative Determination of the $CN^-$-Ions (Kachestvennoye opredeleniye iona $CN^-$).

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1957, Vol. 12, Nr 6, pp. 759-759 (USSR)

ABSTRACT: Applying the method of adsorption on $Al_2O_3$, the content of $CN^-$-ions with copper-acetate and benzidine is determined by the development of blue coloration. Since the ions disturbed chlorine, bromine, iodine and rhodanite, it is advisable to carry out the experiments in 95% ethyl alcohol. The sensitiveness of the method amounts to 0,15 $\gamma$ $CN^-$.

SUBMITTED: August 2, 1956

AVAILABLE: Library of Congress

1. $CN^-$-Ions-Determination 2. $Al_2O_3$-Adsorption-Application

Card 1/1

AUTHOR: [illegible] 75-15-2-11/27

TITLE: Application of Electric Continuous Current With Some Chromatographic Investigations (Iz, l'zovaniye postoyannogo elektricheskogo toka, pri nekoterykh khromatograficheskikh issledovaniyakh)

PERIODICAL: [illegible] 1953, Vol 15, Nr 2, [illegible] (USSR)

ABSTRACT: In the case of the presence of a medium with electric conductivity in a column with an absorbent containing the respective reagent, the sensitiveness of the chromatographic methods for the proof of some ions can be increased by the application of electric continuous current. A certain quantity of the test solution and the developers - reagents - are placed at one end of the column with the absorbent. If and when the solution does not [illegible] the content of the column, the other end of the [illegible] put into a small dish on the bottom of which is a [illegible] filter paper moistened with distilled water. The [illegible] in the column and wets the absorbent after [illegible] The column is then

Card 1/3

[illegible]

Application of Electric Continuous Current [illegible]
Investigations

fastened by a support and a platinum [illegible] introduced from each of the 2 sides into the [illegible] Since the electric conductivity in the column is very low, the two needles must be approached up to a distance which does not exceed 1 to 1,5 cm. A direct current of the polarity by high voltage of 15 volts, sometimes even up to 15 volts, is applied to the platinum needles. It is important that these tests are carried out at low amperage. [illegible] results were obtained at 0,01 - 0,02 A. A larger increase of the amperage results in most of the cases in an irregular coloration of a certain part of the column and sometimes also in the formation of a non-characteristic dark brown coloration. Positive results are obtained by the method described when the anode-needle is introduced into the end of the column through which the test solution and the developers were introduced. This method was applied for the proof of nine

Card 2/3

79-13-2-1/27

Application of Electric Continuous Current With Some Chromatographic Investigations

unions. The best results were obtained with the proof of the nitrite-ion. The carrying out of the proof reaction on $NO_2$ by the formation of azo-dyes was described. The increase of the sensitiveness by the described method is given. Especially with the reaction with sulfanilamide and sulfanic acid the sensitiveness increases highly. There is 1 figure.

PUBLISHED: August 7, 1956

1. Ions--Chromatographic analysis 2. Electric currents--Performance 3. Reagents--Applications 4. Absorbents--Performance

Card 3/3

STOYKO, St.

"Alpine vegetation of the Riesengebirge, Kralicky Sneznik and Hruby Jesenik; a theory of anemo-orographic systems/ in Czech/ by Jan Jenik. Reviewed by St. Stoiko. Bot. zhur. 48 no.10:1542-1545 O '63. (MIRA 17:1)

1. L'vovskiy lesotekhnicheskiy institut.

GOLUBETS, M.A. [Holubets', M.A.]; STOYKO, S.M.

Interuniversity conference on the study of the natural resources of Podolia. Ukr. bot. zhur. 21 no.1:113-114 '64. (MIRA 17:3)

STOYKO, S.M.

Investigation of certain varieties of the common oak, quercus robur L. Dop.AN URSR no.6:406-409 '53. (MLRA 7:1)

1. Institut lisivnitstva Akademii nauk Ukrains'koi RSR. Predstaviv diysniy chlen Akademii nauk Ukrains'koi RSR P.S.Pogrebnyak. (Oak)

[illegible], [illegible] .- "Deep [illegible] of the Trans-Carpathians and Means of Increasing Their Productivity." Akademiya Nauk Ukrainskoy SSR, Inst of Botany, Kiev, [illegible] (Dissertations For the Degree of Candidate of Biological Sciences)

So: Kolomnaya Letopis' No. 2[illegible], June 195[illegible], Moscow

STOYKO, S.M.

Natural stands of the oak Quercus petraea Liebl. in the beech zone of Transcarpathia. Bot.zhur. [Ukr.] 12 no.4:66-74 '55. (MLRA 9:3)

1. Institut lisivnitstva AN URSR.
(Transcarpathia--Oak)

STUYKO, S.M.

On the necessity of restoring reserves in the extensive and valuable Transcarpathian forests. Bot.zhur. 42 no.9:1416-1426 S '57. (MIRA 10:12)

1. L'vovskiy lesotekhnicheskiy institut.
(Transcarpathia--Forest reserves)

COUNTRY : USSR

CATEGORY : Forestry. Forest Management.

ABS. JOUR. : RZhBiol., No. 4,1959, No. 1[illegible]

AUTHOR : [illegible]

INST. : --

TITLE : [illegible] about the improvement of the forest [illegible] in the Carpathians.

ORIG. PUB. : Lesn. Zh-vo, 1958, No.1, 9-13

ABSTRACT : [illegible] in mountainous [illegible] in the [illegible] broad-leaved-spruce forests [illegible] for [illegible] for [illegible] [illegible] for restoration of [illegible] forest reservations [illegible] been

Card: 1/2

STOYKO, S.M.

Books on the Tatra National Park. Ukr.bot.zhur. 16 no.6:106-110 '59. (MIRA 13:5)

(Tatra National Park--Botany)

STOYAO, S.M.

Protection of nature in the people's democracies. Mat.pro okhor. pryr.na Ukr. no.2:101-110 '60. (MIRA 13:8)
(National parks and reserves)

STOYKO, S.M.

Interesting habitat of Juniperus sabina L., a hitherto unknown species in the Ukrainian Carpathians. Ukr.bot.zhur. 17 no.3:72-78 '60. (MIRA 13:7)

1. L'vovskiy lesotekhnicheskiy institut.
(Transcarpathia--Juniper)

STOYKO, S.M., kand.biolog.nauk (L'vov)

Yew. Nauka i zhyttia 11 no. 4:36-37 Ap '61. (MIRA 14:5)
(Yew)

STOYKO, S.M.

"Bibliography of the flora of Czechoslovakia" by Jan Futak and Karol Domin. Reviewed by S.M. Stoiko. Bot. zhur. 46 no.8: 1217-1218 Ag '61. (MIRA 15:1)

1. L'vovskiy lesotekhnicheskiy institut.
(Bibliography--Czechoslovakia--Botany)
(Czechoslovakia--Botany--Bibliography)
(Futak, Jan) (Domin, Karol)

STOYKO, S.M.

Present state and current tasks in the protection of nature in the Ukrainian Carpathians. Okhr.prir.i zapov.delo v SSSR no.7: 7-24 '62. (MIRA 16:4)
(Carpathian Mountains—Conservation of natural resources)

[illegible] Vas, [illegible] Bl. [illegible]
[illegible] 7, [illegible], red.

[Guide to the identification of the wood of tree species of the western provinces of the Ukrainian S.S.R. (based on the anatomic indices)] Opredelitel' drevesiny lesoobrazovatel'nykh porod zapadnykh oblastey USSR (po anatomicheskim [illegible]). L'vov, Lvovskiy univ. [illegible] p. (MIRA [illegible])

BULGARIA/ Farm Animals. Small Horned Stock.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40475.

Author : Ganovskiy Khr., Stoykov D., Shishkov, Iv.
Inst : Not given.
Title : The Study of the Digestibility and Nutritiousness of Alfalfa and Clover.

Orig Pub: Nauchn. tr. Vissh. veterinarnomed. in-t, 1956, 4 441-453.

Abstract: An experiment was carried out on fistulous and on normal sheep. It was found that intestinal digestion is intensified under the influence of succulent feeds, such as alfalfa and clover, which contributes to the higher consumption of these feeds. The amount of the chyme attains 28.152 liters per day and the average amount of

Card 1/2

BULGARIA/Diseases of Farm Animals. Pathology of Reproduction R-3

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31135

Author : Minchev P., Stoykov D.
Inst : Institute of Experimental Veterinary Medicine, Bulgarian AS

Title : On Chronic Endometria in Heifers and Their Paragenital Treatment with Morphine

Orig Pub : Izv. In-ta eksperim. vet. med. B"lg. AN, 1956, No 5, 95-104

Abstract : Morphine was used in doses of 0.1-0.3 g. in 1% aqueous solution, in a series of 3 injections at intervals of 2-3 days, followed by a repetition of this course of treatment after 4-6 days. Of 69 heifers (41 with chronic mucopurulent endometritis and 28 with purulent endometritis), recovery and fertilization were obtained in 61 cases (80%). The author explains the therapeutic effectiveness of morphine by its action on the sexual center of th subcortex during the inhibition of the cortex of the cerebrum, as well as by its direct stimulation due to which the efferent pathological in-

Card : 1/2

STOYKOV, G. N., REZ, I.S., and RUSKOV, L.S.

1 Schnipovskiy Land, 11/13 fl. 63, Moscow-"Growing of Piesoelectric Crystals in USSR" (Section 14-15) a paper submitted at the General Assembly and International Congress of Crystallography, 10-19 Jul 57, Montreal, Canada.

C-3,800,189

POPOV, G.; STOYKOV, M.; IVANOV, A.; GOSPODINOV, B.; SEDLOYEV, S.; STOYANOV, Ye.; VOLCHANOVA, S.; KOLEV, L.

Extracardial anastomoses in congenital and acquired heart defects in experiment. Khirurgiia 36 no.3:38-41 Mr '60. (MIRA 13:12)

(HEART--SURGERY)

" AMIA Chemical Technology - Chemical Products and Their Application, Part 3. - Carbohydrates and Their Treatment. H-25

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 22968

Author : S.A. Stoykov
Inst : -
Title : Pectin from Sunflower Calathides.

Orig Pub : Khimiya i industriya, 1957, 29, No 4, 23-24

Abstract : A brief review.
Bibliography with 12 titles.

Card 1/1

[illegible]YIVEA,S. [illegible]; [illegible], St. [illegible]; [illegible], St. [illegible] [illegible], G.

Therapeutic effects in the treatment of Bechterew's disease using phenol acid electrophoresis. Folia med. (Plovdiv) [illegible] 1:3 [illegible] 1964

1. Institut [illegible] de Hautes Etudes Medicales "I.P.Pavlov" de Plovdiv, Bulgarie, Centre de Therapie de Rhumatisme avec Physiothérapie.(Directeur: prof. P. Brankov).

Ilyik, Irina Fedorovna. STEYKOVA, Valentina Nikolayevna

[Guide for the translation of technical material from English into Russian] Posobie po perevodu tekhnicheskikh tekstov s angliiskogo iazyka na russkii. Izd.2. Moskva, Vysshaia shkola, 1963. 154 p. (MIRA 17:4)

L 11384-63 EPF(n)-2/EWP(q)/EWT(m)/BDS/T-2/ES(w)-2 AFFTC/ASD/SSD Pu-4/
Pab-4 WH
S/120/63/000/002/028/041

73

AUTHOR: Stoykovich, Ye., Bachu, G., Bedenoyu, M., Chentya, N., and Khal'trikh, S.

TITLE: Use of ceramics in betatron accelerating chambers

PERIODICAL: Pribory i tekhnika eksperimenta, March-April 1963, v. 8, no. 2, 124-126

TEXT: The authors give instructions for making betatron accelerating chambers of ceramics which eliminate the deficiencies of glass and epoxy resins. A chamber made according to the authors' prescription has been successfully used for several years at the Atomic Physics Institute of the Academy of Sciences of Rumania; the only repair necessary was replacement of metallic coating near the injector. There is one figure.

ASSOCIATION: Institut atomnoy fiziki AN Rumynii (Atomic Physics Institute, Academy of Sciences Rumania)

SUBMITTED: February 12, 1962

Card 1/1

STOYLIK, M. A.

29047-Opyt Rabety Varegovskoy Peregruzochnoy Estakady. Torf. Prom-st, 1949 No. a, s. 22-24

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

1. STOVIK, V.A.

2. USSR (600)

4. Technology

7. Mechanization of peat transport. Moskva, Gosenergoizdat., 1952

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

.T [illegible], N. A.

Peat Industry

Methods of reloading peat.
Torf. prom. 29, no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

ANTONOV, V.Ya., kand.tekhn.nauk; BEZZUBOV, N.D., kand.tekhn.nauk; BELOKO-
PYTOV, I.Ye., kand.sel'skokhoz.nauk; BLYUMENBERG, V.V., kand.tekhn.
nauk; BOGDANOV, N.N., kand.tekhn.nauk; BRAGIN, N.A., inzh.; VASIL'YEV,
Yu.K., inzh.; VINOGRADOV, V.A., inzh.; ROZENBERG, B.I., inzh.; GOR-
GIDZHANYAN, S.A., kand.tekhn.nauk; ZIZA, A.A., kand.sel'skokhoz.nauk;
KALABUKHOV, M.V., agronom-melioirator; KOLOTUSHKIN, V.I., inzh.; KORCHU-
NOV, S.S., kand.tekhn.nauk; KRYUKOV, M.N., dotsent; VAVULO, V.A., inzh.;
NAUMOV, D.K., kand.tekhn.nauk; OLENIN, A.S., inzh.; PROVORKIN, A.S.,
inzh.; PROKHOROV, N.I., dotsent; RASKIN, G.I., inzh.; SAVENKO, I.V.,
inzh.; SERGEYEV, B.F., kand.tekhn.nauk; STOYLIK, M.A., inzh.; SUKHA-
NOV, M.A., inzh.; TOPOL'NITSKIY, N.M., kand.tekhn.nauk; TYURENOV, S.N.,
doktor biol.nauk, prof.; FATCHIKHINA, O.Ye., kand.sel'skokhoz.nauk;
TSVETKOV, B.I., inzh.; CHUBAROV, N.D., inzh.; MANDEL'BAUM, A.I., inzh.;
(Continued on next card)

ANTONOV, V.Ya.---(continued) Card ..

YARTSEV, A.K.; SAMSONOV, N.N., inzh., glavnyy red.; BERSHADSKIY, L.S., inzh., nauchnyy red.; VARENTSOV, V.S., kand.tekhn.nauk, nauchnyy red.; VYSOTSKIY, K.P., kand.tekhn.nauk, nauchnyy red.; GORINSHTEYN, L.L., kand.tekhn.nauk, nauchnyy red.; DORYACHKIN, V.G., prof., nauchnyy red.; YEFIMOV, P.N., kand.tekhn.nauk, nauchnyy red.; KUZHMAN, G.I., kand.tekhn.nauk, nauchnyy red.; KULAKOV, N.N., kand. tekhn.nauk, nauchnyy red.; KUTAIS, L.I., prof., doktor tekhn.nauk, nauchnyy red.; MIRKIN, M.A., inzh., nauchnyy red.; SEMENSKIY, Ye.P., kand.tekhn.nauk, nauchnyy red.; SOKOLOV, A.A., kand.tekhn.nauk, nauchnyy red.; KHAZANOV, Ya.N., dotsent, nauchnyy red.; KHALUDO, A.K., inzh., nauchnyy red.; TSUPROV, S.A., dotsent, nauchnyy red.; SHTEYNBOK, G.D., inzh., nauchnyy red.; KOLOTUSHKIN, V.I., red.; SKVORTSOV, I.M., tekhn.red.

[Reference book on peat] Spravochnik po torfu. Moskva, Gos.energ. izd-vo, 1954. 728 p. (MIRA 13:7)

1. Chlen-korrespondent AN BSSR (for Doryachkin).
(Peat--Handbooks, manuals, etc.)

VYSOTSKIY, Konstantin Petrovich; LARIONOV, Vladimir Sergeyevich; SAMOYLOV, Pavel Pavlovich, inzhener [deceased]; STOYLIK, M.A., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor.

[Transportation of peat] Transport torfa. Moskva, Gos.energ.izd-vo, 1955. 256 p. (MLRA 9:4)

(Peat--Transportation)

STOYLIK, M.A., inzh.

Ways of reducing capital outlays for peat transportation. Torf. prom. 36 no.2:12-15 '59. (MIRA 12:4)

1. Giprotorf.
(Peat--Transportation)

GRACHEV, Viktor Anatol'yevich; STOYLIK, Mikhail Alekseyevich. Prinimal uchastiye FADEYEV, V.G.; FEDOROV, V.V., kand. tekhn. nauk, retsenzent; MERKUSHEV, R.N., kand. tekhn. nauk, dotsent, red.; BORUNOV, N.I., tekhn. red.

[Railroad transportation in the peat industry] Zheleznodorozhnyi transport torfianoi promyshlennosti. Moskva, Gos. energ. izd-vo, 1960. 291 p. (MIRA 14:10)
(Railroads, Industrial) (Peat industry)

L 11962-65 EWG(j)/EWA(k)/FBD/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EEC(t)/T/
EEC(b)-2/EWP(w)/EWA(m)-2/EWA(h) Pm-4/Po-4/Pf-4/Pl-4/Pl-4/Peb IJP(c)/SSD/AFWL/
AFETR/BSD/RAEM(a)/ASD(a)-5/ASD(d)/ESD(gs)/ESD(t) WG/WH
ACCESSION NR: AP4047933 S/0056/64/047/004/1595/1597

AUTHOR: Basov, N. G.; Ambartsumyan, R. V.; Zuyev, V. S.; Krynkov, P. G.; Stoylov, Yu. Yu.

B

TITLE: Q-switched laser 25

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 4, 1964, 1595-1597

TOPIC TAGS: laser, ruby laser, laser amplifier, Q switch, Q switching laser

15

ABSTRACT: The gross output characteristic of a Q-switched ruby laser was plotted by using a Kerr cell in combination with a polarizing prism as the shutter. The ruby rod was 12 cm long, 0.9 cm in diameter, and had a $Cr^{3+}$ concentration of 0.06%. A helical flash lamp was energized by an 8-kv, 300-μf power supply and produced a 700-μsec pulse. The Kerr cell was energized by a 0.5-μsec pulse, whose rise time was 5 nanoseconds, 500 μsec after ignition of the flash lamp. The laser then emitted a single pulse with an energy of 1.8 joules. The addition of a second ruby laser as an amplifier produced an output pulse of 8 joules having a steeper form. Orig. art. has: 2 figures.

Card 1/2

L 11962-65

ACCESSION NR: AP4047933

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ASSOCIATION: none

SUBMITTED: 10Jul64 ATD PRESS: 3120 ENCL: 00

SUB CODE: EC NO REF SOV: 002 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653420006-4"

ARASHKEVICH, V.M., dotsent; VESELOV, A.I., professor; VOLOTKOVSKIY, S.A., professor; ZHUKOV, L.I., dotsent; IPPOLITOV, M.D., dotsent; KUTYUKHIN, P.I., dotsent; KOMPANEYETS, V.P., dotsent; MALAKHOV, A.Ye., professor; NEUDACHIN, G.I., dotsent; RYABUKHIN, G.Ye., professor; SAKOVTSEV, G.P., dotsent; STOYLOV, B.A., dotsent; TROP, A.Ye., dotsent; FEDOROV, S.A., professor; YAKUSH, A.Ye., dotsent, redaktor; TARKHOV, A.G., redaktor; GAMBURTSEVA, Ye.Ye., redaktor; GUROVA, O.A., tekhnicheskiy redaktor.

[Collection of articles on geophysical methods of prospecting] Sbornik statei po geofizicheskim metodam razvedki. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1955. 109 p. (MLRA 8:11)

1. Sverdlovsk. Gornyy institut.
(Prospecting--Geophysical methods)

ARASHKEVICH, V.M., dotsent, redaktor; VESELOV, A.M., professor, redaktor; VOLOTKOVSKIY, S.A., professor, redaktor; ZHUKOV, L.I., dotsent, redaktor; IPPOLITOV, N.D., dotsent, redaktor; KAMPANEYETS, V.P., dotsent, redaktor; KUTYUKHIN, P.I., dotsent, redaktor; MALAKHOV, A.Ye., professor, redaktor; MEUDACHIN, G.I., dotsent, redaktor; RYABUKHIN, G.Ye., professor, redaktor; SAKOVTSEV, G.P., dotsent, redaktor; STOYLOV, B.A., dotsent, redaktor; TROP, A.Ye., dotsent, redaktor; FEDOROV, S.A., professor, redaktor; YAROSH, A.Ya., dotsent, redaktor; SLAVOROSOV, A.Kh, redaktor izdatel'stva; AIADOVA, Ye.I., tekhnicheskiy redaktor

[Problems in the efficient organization of surveying in mining enterprises] Voprosy ratsionalizatsii marksheidarskoi sluzhby na gornykh predpriiatiiakh. Moskva, Ugletekhizdat, 1955. 128 p. (MLRA 9:10)

1. Sverdlovsk. Gornyy institut.
(Mine surveying)

STOYLOV, B.A., [illegible]; M[illegible], V.[illegible], [illegible].

Prospects for narrow-range working in conditions of the Chelyabinsk Coal Basin. Izv. vys. ucheb. zav.; gor. zhur. no.1:13-18 '58. (MIRA 11:5)

1. Sverdlovskiy gornyy institut.
(Chelyabinsk Basin--Coal mines and mining)

**Investigations on the aleurone layer.** Dontcho Kostov, Marol Stoylov, George Sterkhol, Ivan Grigorov, and Boko Rouhov (Agr. Acad., Sofia, Bulgaria). *Z. Pflanzenernähr 29*, 107-9 (1950); *Chem. Zentr.* 1950, II, 1953. The aleurone layer surrounds the endosperm in grains. Proteins are stored in this layer, so that histological status of the layer aids in the selection of protein-rich grain. Proteins are also present in the embryo. M. G. Moore

CZECHOSLOVAKIA

STOYLOV, S

Institute of Physical Chemistry, Bulgarian Academy of Sciences, Sofia, Bulgaria

Prague, Collection of Czechoslovak Chemical Communications, No 7, July 1966, pp 2866-2877

"Light scattering by colloid solutions in an electric field. Part 1. Theory of the effect for rod-like particles."

STUYLOV, Yuriy Ivanovich; KONYUKHOV, Sergey Mikhaylovich; PUKHAS, Yuriy L'vovich; KAZAK, Anufriy Ivanovich; SHABASHOV, A.P., kand. tekhn. nauk, retsenzent; GEKTINA, R.F., inzh., red.; LUGINA, N.A., tekhn. red.

[Single-bucket excavators; use and maintenance of excavators with capacities of 0,15 - 1.25 cu.meters] Odnokovshovye ekskavatory; ekspluatatsiia i obsluzhivanie ekskavatorov s kovshom emkost'iu 0,15 - 1,25 $m^3$. Moskva, Mashgiz, 1961. 323 p. (MIRA 14:12)
(Excavating machinery)

L 1379-66 EWA(k)/FBD/EWT(1)/EEC(k)-2/T/EWP(k)/EWA(m)-2/EWA(h) SCTB/IJP(c)

ACCESSION NR: AP5022443 WG UR/0109/65/010/009/1729/1730
621.378.325.001.5:621.383.52

AUTHOR: Ambartsumyan, N. V.; Basov, N. G.; Yeliseyev, P. G.; Zuyev, V. S.; Kryukov, P. G.; Stoylov, Yu. Yu.

TITLE: The measurement of the time parameters of a giant pulse laser by means of a photodiode

SOURCE: Radiotekhnika i elektronika, v. 10, no. 9, 1965, 1729-1730

TOPIC TAGS: giant pulse laser, gallium arsenide, photodiode, resolving time, Kerr cell, photomultiplier

ABSTRACT: The time-dependent characteristics of a giant pulse laser switched by a Kerr cell were measured by means of a gallium arsenide photodiode. The photodiode was obtained by diffusion of cadmium into n-type GaAs with a $2 \times 10^{18}$ $cm^{-3}$ concentration of tellurium during a period of 60 hr. The depth, thickness, and area of the p-n junction were 80 μ, 0.9 μ, and $2.5 \times 10^{-3}$ $cm^2$, respectively. The photodiode was pumped at right angles by a nonfocused laser beam and the pulse width from the photodiode (connected across a 75-ohm load) was 40 nanosec at room temperature, and 20 nanosec at 77K. The results indicate that the resolving time of the

Card 1/2

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ACCESSION NR: AP5022443

photodiode is not greater than 5 nanosec, a quality which makes it competitive with photomultipliers. Unlike photomultipliers, which introduce a signal time lag, photodiodes are capable of accurately determining the time lag of a laser pulse released by the Kerr cell. The experimental value of the lag was 80 nanosec. Orig. art. has: 2 figures. [YK]

ASSOCIATION: none

SUBMITTED: 09Dec64 ENCL: 00 SUB CODE: EC

NO REF SOV: 001 OTHER: 001 ATD PRESS: 4092

Card 2/2

L 00602-65 EWT(m)/EWP(r)/EWA(d)/EWA(h)/EWA(l)/EEC(k)-2/EEC(b)-2/EEC(b)-2/EEC(k)/EEC(m)-2/EWA(h) Pn-4/Pm-4/Pz-6/Po-4/Pf-4/Peb/Pi-4/Pl-4 ACTP/IJP(c) WG/WW/AT

ACCESSION NR: AP5016549 UR/0056/65/048/006/1583/1587

AUTHOR: Ambartsumyan, R. V.; Boyko, V. A.; Zuyev, V. S.; Basov, N. G.; Krokhin, O. N.; Kryukov, P. G.; Senatskiy, Yu. V.; Stoylov, Yu. Yu.

TITLE: Heating of matter by focused laser radiation

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 6, 1965, 1583-1587

TOPIC TAGS: high temperature plasma, laser application, laser radiation, lithium, air

ABSTRACT: In discussing the main factors that limit the heating of matter to high temperatures by laser radiation, the authors point out that in solids the limitations are imposed by the sharp focus that obtains under most experimental conditions, and that in gases the limitation is imposed by the possibility of gas breakdown. In view of these limitations, they conclude, after analyzing the motion of the breakdown boundary in a gas qualitatively, that focusing of laser radiation on the surface of a condensed medium located in vacuum is the most promising method of obtaining a high temperature plasma. In this case the most convenient mode of

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ACCESSION NR: AP5016549

operation is one in which one-dimensional motion of plasma occurs, since three-dimensional motion leads to rapid reduction in density and a decrease in the relative fraction of the laser radiation absorbed in the plasma. Under these conditions the maximum achievable temperature is determined by the energy loss due to radiation and thermal conductivity. The authors then report the results of a spectral analysis of the emission from a plasma produced by focusing the radiation from a neodymium glass Q-switched laser on the surface of a solid sample of lithium in vacuum. The laser radiation consisted of two pulses, each with energy approximately 3J and each approximately 40 nsec in length. The estimated obtained temperature in this case is of the order of 20 eV ($2.3 \times 10^5$ deg). In the case of breakdown produced in air of normal density by a ruby laser pulse of approximately 3J the corresponding temperature cannot exceed 10.5 eV. Orig. art. has: 3 figures and 3 formulas. [02]

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 16Jan65 ENCL: 00 SUB CODE: EC, NP

NO REF SOV: 009 OTHER: 003 ATD PRESS: 4033

Card 2/2